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2181
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Patrick A. Raymond et al.

Serial No.: 09/466,025

Filed: December 17, 1999

For: METHOD AND APPARATUS FOR
DETECTING THE PRESENCE OF
A HOT PLUGGABLE COMPONENT
IN A COMPUTER SYSTEM

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Group Art Unit: 2181

Examiner: Huynh, Kim T.

Atty. Docket: COMP:0078/FLE
P98-2379

Technology Center 2100

AUG 12 2002

RECEIVED

Assistant Commissioner
for Patents
Washington, D.C. 20231

CERTIFICATE OF MAILING 37 C.F.R. 1.8	
I hereby certify that this correspondence is being deposited with the U.S. Postal Service as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on the date below:	
August 1, 2002	
Date	Michael G. Fletcher

Sir:

RESPONSE TO OFFICE ACTION

In response to the Official Action mailed on May 1, 2002, claims 1-18 were pending at the time of the Office Action, with claims 1-18 being rejected. In considering these remarks, Applicants request that claims 1-18 remain pending. Reconsideration of the application is respectfully requested.

Rejections Under 35 U.S.C. §102

The Examiner rejected claims 1-9, and 12-18 under 35 U.S.C. § 102(b) as being unpatentable over Miller et al. (U.S. 5,365,383). Specifically, the Examiner stated:

Miller et al discloses, a computer system comprising:
An electromagnetic energy source (fig. 1a, 14) located on a
first side of a system board (fig. 1a, 1) proximate an

connector, the electromagnetic energy source for generating electromagnetic energy directed at least toward a second opposing side of the system board (fig. 1a, 22); and

An electromagnetic energy detector (fig. 1a, 12) located on the second side of the system board the electromagnetic energy detector for detecting a presence of electromagnetic energy when a hot-pluggable component (fig. 1a, 8) is not mated to the connector and the electromagnetic energy is thereby unobstructed by the hot-pluggable component, the electromagnetic energy when the hot-pluggable is mated to the connector and the electromagnetic energy is thereby obstructed (col. 5 line 51-53) by the hot-pluggable component. (col 4 lines 58-col.5, line65)

A processor (fig. 1a, 2) for communicating with the electromagnetic energy detector for receiving the detection of the presence or absence of electromagnetic energy by the electromagnetic energy detector.

A hard drive (fig. 1a, 3) for storing an indication that the hot-pluggable component is absent when the presence of electromagnetic energy is detected, the hard drive further for storing an indication that the hot-pluggable component is absence when the absence of electromagnetic energy is detected.

The electromagnetic energy is infra-red energy magnetic energy (col.5, lines31-38) or ultrasonic energy.

The connector is one of an edge connector, a cable connector, a fibre channel connector and a USB connector (fig. 1a, 15).

Applicants respectfully traverse this rejection. Anticipation under section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). To maintain a proper rejection under section 102, a single reference must teach each

and every element or step of the rejected claim. *Atlas Powder v. E.I. du Pont*, 750 F.2d 1569 (Fed. Cir. 1984).

Applicants respectfully submit that the Examiner's assertion that the Miller reference includes the elements within claims 1-9 and 12-18 is clearly in error. Indeed, Applicants respectfully submit that the Examiner has read much more into the Miller reference than the Miller reference actually discloses. The Miller reference does not disclose a system board, as it is primarily focused on a computer memory backup device rather than a hot pluggable component as claimed. Indeed, it does not specifically disclose many elements set forth in the rejected claims, such as a hot pluggable component, a hard drive, a processor, or edge connectors. Hence, to the extent that the Examiner is relying upon the cited reference for teaching these elements, the Miller reference is wholly insufficient to render the claimed subject matter anticipated. ✓ ✓

In regard to these differences, it should be noted that the Examiner asserted that item number 1 of Fig. 1a in the Miller reference is a system board. The cited reference has been reviewed carefully, and Applicants respectfully submit that item 1 cannot be construed as a system board. Rather, the Miller reference recites that item 1 is a computer memory backup device that may be connected to a computer and is intended to be used with removable cartridge tapes. Clearly the computer memory back-up device is not a system board, because it includes a housing structure that is able to receive the tape cartridge as disclosed in the reference. (Column 4, lines 27-40, lines 57-65).

Furthermore, the Examiner asserted that item number 8 of Fig. 1a in the Miller reference is a hot-pluggable component. Item number 8 is actually a computer tape cartridge (Column 4, lines 58-67, Column 5, lines 1-12). The computer tape cartridge is merely a storage media that is used by the computer. The Miller reference does not disclose the use of a hot-pluggable component of any kind as claimed.

The Examiner's rejections include additional faulty assumptions as well. First, the Examiner asserted that item number 15 in Fig. 1a of the Miller Reference discloses the edge connector. Yet, item number 15 is merely a light pipe and not a connector of any sort. The light pipe is used to channel the light through the system and is not used as a connector for the hot-pluggable component. Second, in the Miller reference, the computer tape cartridge does not connect to the light pipe in any manner. In fact, the two items do not even appear to touch each other in the drawings or as discussed in the reference. Third, the Examiner asserted that item number 2 of Fig. 1a of the Miller reference discloses a processor. However, item number 2 is actually a computer interconnect, which is a connector and not a processor (Column 4, lines 29-31). The Examiner's assertion that the computer interconnect is a processor is clearly in error as the computer interconnect is described as a connector in the Miller reference. Fourth, the Examiner asserted that item number 3 in Fig. 1a of the Miller reference discloses a hard drive. Under closer examination, this assertion must fail for at least two reasons. First, item number 3 of the Miller reference is actually a computer tape memory media, not a hard drive (Column 4, lines 34-38). Likewise, the computer tape memory media is contained in a tape cartridge.

In view of the remarks set forth above, Applicants respectfully submit that the Examiner has not demonstrated a *prima facie* case of anticipation. Therefore, Applicants respectfully request withdrawal of the Examiner's rejection and allowance of the pending claims.

Rejections Under 35 U.S.C. §103

The Examiner rejected claims 10 and 11 under 35 U.S.C. § 102(b) as being unpatentable over Miller et al. (U.S. 5,365,383). Specifically, the Examiner stated:

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al U. S. Patent 5,365,383.

Miller et al discloses the claims inventions as discussed above for claims 1-9 and 12-18, which show first source and first detector. However, Miller fails to show a 2nd source and a 2nd detector. The additions of a 2nd source and detector is a mere duplication of parts producing no new and unexpected result and therefore has no patentable significance. See MPEP 2144.04 VI B, and in re Harza, 274 F.2d 669, 124 the time of applicant's invention to include a 2nd source and 2nd detector into Miller et al. in order to ensure the accurate detection of a component in the even that one of the detectors is faulty or incorrect.

In view of the remarks set forth above with regard to the missing elements in the Miller reference, the Examiner's rejection of claims 10 and 11 is unsupportable for the reasons set forth above. Furthermore, the Examiner contends that the inclusion of a second source and detector is obvious. The Applicants' inclusion of a second detector and second source not only provides redundancy as suggested by the Examiner, but increases the reliability of the system in the event that the hot-pluggable component is inserted at an angle and is not detected.

For example, the multiple detectors and sources may be used to notify “the processor as to whether the hot pluggable component 120 is approaching or retreating from the system board 110 by tracking the sequence of detections.” (Page 10, line 15 to page 11, line 4). As another example, the multiple sources and detectors may be used to “accurately detect the presence or absence of the hot-pluggable component 120 if the hot pluggable component 120 is inserted or removed sufficiently horizontal to the system board.” (Page 11, line 5 to page 12, line 2). In the case of In re Harza, the court rejected the claims as unpatentable because the parts were performing the exact same function of sealing bricks together to form a water tight structure. Unlike, the In re Harza situation, the second detector and second source in the present application provide additional functionality to the system in the area of reliability as discussed above. These components add features to the system, which increase the systems ability to properly detect the insertion of a hot pluggable component into the system board. Thus, while the components operate in a similar manner, the additional detector and sensor are providing different functions from the first detector and sensor.

The Applicants respectfully submit that the Examiner has not demonstrated a *prima facie* case of obviousness. Therefore, Applicants respectfully request withdrawal of the Examiner’s rejection for claims 10-11 and allowance of the pending claims.

Conclusion

In view of the remarks set forth above, Applicants respectfully request allowance of claims 1-18.

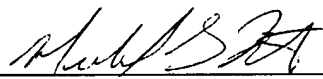
If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

General Authorization for Extensions of Time

In accordance with 37 C.F.R. § 1.136, Applicants hereby provide a general authorization to treat this and any future reply requiring an extension of time as incorporating a request therefor. Furthermore, Applicants authorize the Commissioner to charge the appropriate fee for any extension of time to Deposit Account No. 06-1315; Order No. COMP:0078/FLE (P98-2379).

Respectfully submitted,

Date: August 1, 2002



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